

Learn More about Cerebral Palsy

[Announcer] This podcast is presented by the Centers for Disease Control and Prevention. CDC - safer, healthier people.

[Host] Thank you for joining us today for our podcast on cerebral palsy awareness. We have two wonderful guests to talk with us about cerebral palsy, or CP. First, we have Dr. Marshalyn Yeargin-Allsopp, who is a developmental pediatrician and medical epidemiologist. She's been at CDC for 26 years, and is the Chief for the Developmental Disabilities Branch at CDC's National Center on Birth Defects and Developmental Disabilities. We also have Cynthia Frisina Gray, who is co-founder for the parent group, *Reaching for the Stars, A Foundation of Hope for Children with Cerebral Palsy*. Cindy is the mother of two daughters, Alexandra and Cathryn. Cathryn has CP. Welcome to both of you. Dr. Yeargin-Allsopp, tell us a little about CP.

[Dr. Yeargin-Allsopp] CP is the most common cause of motor disability in children. CP refers to a group of disorders that affect a person's ability to move and to maintain balance and posture. CP is caused by damage to one or more parts of the brain that control movement. The part of the brain that's damaged determines what parts of the body are affected. CP itself is not progressive -- the brain damage does not get worse as the child gets older, however, the disability can change over a person's lifetime. Depending on which areas of the brain have been damaged, one or more of the following may occur: muscle tightness, involuntary movement, difficulty walking, difficulty in swallowing, and problems with speech. As you can tell, CP affects people in different ways.

[Host] Cindy?

[Cindy Frisina Gray] A good way to explain this is that people with cerebral palsy have damage to the part of the brain that controls muscle tone. Muscle tone is the amount of resistance to movement in a muscle. It's what lets you keep your body in a certain posture, position, for example, to sit up straight and keep your head up.

[Host] Dr. Yeargin-Allsopp, about how many children are affected with CP?

[Dr. Yeargin-Allsopp] I'm glad you asked. CDC just released a new study in the March 2008 issue of *Pediatrics* which shows that 3.6 per 1,000 8 year-old children, or 1 in 278 children, have CP. It's more common among boys, Black non-Hispanic children, and those living in low- and middle-income neighborhoods. It is least common among Hispanic children. The study showed that CP prevalence is definitely not decreasing.

[Host] Can you explain what causes CP?

[Dr. Yeargin-Allsopp] In 80 percent of children with CP, the cause of the brain damage leading to CP is not known. Possible causes include genetic conditions and problems with blood supply to the brain. Other causes happen during pregnancy or in the first years of

the child's life, such as bacterial meningitis, bleeding in the brain, lack of oxygen, severe jaundice, and head injury.

[Host] Cindy, are there risk factors for CP?

[Cindy Frisina Gray] Yes there are. Two of the main risk factors for cerebral palsy are premature births and multiple births. These two risk factors have both increased in frequency in the United States, despite the introduction of modern prenatal testing, improved obstetric care, and newborn intensive care technologies. Women should also be aware that several factors that have been shown to be associated with prematurity and low birth weight include smoking, alcohol abuse, and poor medical management of maternal conditions, such as diabetes, infection, and hypertension.

[Host] Dr. Yeargin-Allsopp, I've heard there are different types of CP. Can you tell us a little more about these?

[Dr. Yeargin-Allsopp] Yes, there are actually four main types of CP - spastic, athetoid, ataxic, and mixed.

People with spastic cerebral palsy have increased muscle tone. Their muscles are stiff and their movements can be awkward. Seventy to eighty percent of people with CP have spasticity. Spastic CP is usually described by what parts of the body are affected. For example, spastic quadriplegia affects a person's whole body, such as face, trunk, legs, and arms.

People with athetoid cerebral palsy have slow, writhing movements that they can't control. It usually affects a person's hands, arms, feet, and legs. If the face and tongue are affected, the person will have a hard time talking. Muscle tone can change from day to day and can vary even during a single day. Ten to twenty percent of people with CP have the athetoid form of the condition.

People with ataxic CP have problems with balance and depth perception. They might be unsteady when they walk and have a hard time with quick movements or movements that need a lot of control, like writing. They might have a hard time controlling their hands or arms when they reach for something. People with ataxic cerebral palsy can have increased or decreased muscle tone. Five to ten percent of people with CP have ataxia. Some people have more than one type of cerebral palsy, that's the last form of cerebral palsy. The most common pattern is spasticity plus athetoid movements.

[Host] Cindy, are there early warning signs of cerebral palsy that parents should be aware of?

[Cindy Frisina Gray] Yes there are. The signs of cerebral palsy vary greatly because of the many different types and levels of disability. However, the main sign that your child might have CP is a delay reaching motor or movement milestones for his or her age. If you are worried about your child's development, please talk to your child's doctor or nurse.

[Host] Dr. Yeargin-Allsopp, can you describe some specific developmental concerns parents should watch for?

[Dr. Yeargin-Allsopp] Absolutely. A child over 6 months might have difficulty bringing the hands together or reach with only one hand while keeping the other in a fist. A child over 10 months might crawl by pushing off with one hand and leg while dragging the opposite hand and leg or not sit by himself. A child over 12 months might not crawl or not be able to stand with support, and a child over 24 months might not be able to walk or not be able to push a toy with wheels. Parents should be particularly aware of these milestones if your child has any risk factors for CP, such as prematurity.

[Host] Cindy, can CP be prevented?

[Cindy Frisina Gray] Unfortunately, right now for most cases, we don't know how yet to prevent CP, however, there are some causes of CP that can be prevented. For example, bike helmets and car seats can prevent head injuries that might result in cerebral palsy and childhood immunizations can prevent infections that could lead to CP. Another cause that can be prevented is kernicterus, which is brain damage that happens when a newborn baby has too much jaundice.

[Host] Cindy, what resources are available for people with cerebral palsy and their families?

[Cindy Frisina Gray] Fortunately, people with cerebral palsy can live healthy lives. There are many federal and federally-funded programs that can help people learn to live well with CP or other developmental disabilities. Our organization, *Reaching for the Stars, A Foundation of Hope for Children with Cerebral Palsy*, is the only parent-led, national, non-profit education and research foundation for pediatric cerebral palsy in the U.S. *Reaching for the Stars* is involved in several important research projects with prominent medical and research institutions around the country and has testified before Congress about the need for national CDC surveillance and epidemiology research of CP. You can get more information about *Reaching for the Stars* at our website: www.reachingforthestars.org.

[Host] Dr. Yeargin-Allsopp, what can a parent do if they think their child might have cerebral palsy?

[Dr. Yeargin-Allsopp] If a parent or their doctor has concerns about cerebral palsy, they can get information from a specialist, such as a developmental pediatrician or a child neurologist, and they can contact their local early intervention agency, for children under 3, or public school, for children 3 and older. To find out who to speak to in your area, contact the National Dissemination Center for Children with Disabilities by visiting www.nichcy.org or calling 1-800-695-0285. In addition, the CDC has links to information for families, including a comprehensive list of resources. Go to www.cdc.gov/ncbddd.

[Host] Thank you both for sharing this information with our listeners today.

[Announcer] For the most accurate health information, visit www.cdc.gov or call 1-800-CDC-INFO, 24/7.